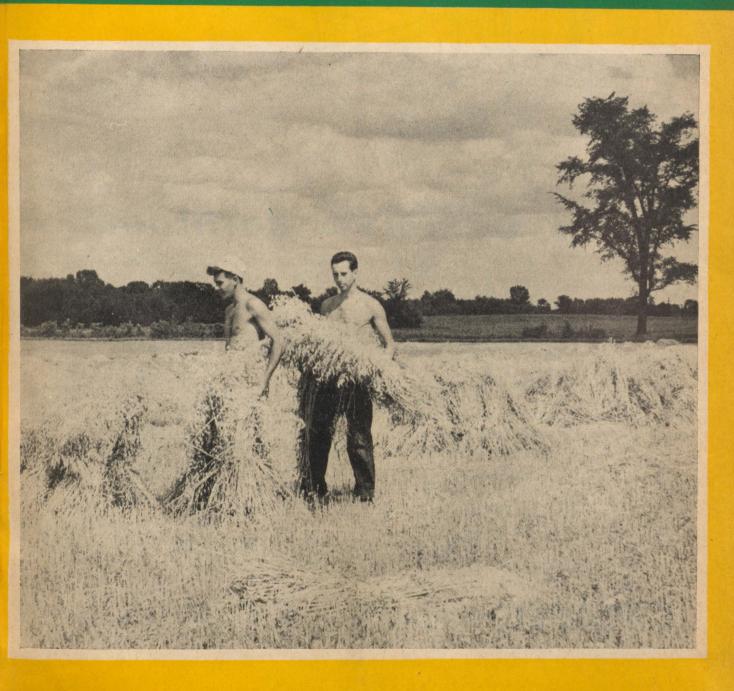
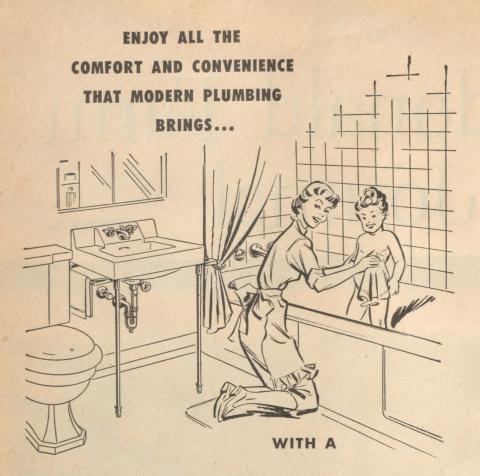




Macdonald Farm Journal





New CRANE bathroom

WHATEVER the size of the room, Crane has the bathtubs, wash basins and toilets to meet your needs-a complete selection in white and eight beautiful colours. They're enduring and easy to clean—like the popular and practical porcelain-on-steel "Ohio" bathtub shown above. It's light-in-weight and inexpensive, yet strong and sturdy for long service—just one of many in the dependable Crane line.

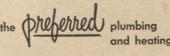
AND A KITCHEN OF CONVENIENCE . . .

Save time, save work, with a bright new kitchen planned around a modern sink. Crane has the size and style you want -with one or two bowls, for installation flush with the counter top, or with double or single drainboard.



Ask your Plumbing and Heating Contractor or your Crane Branch about all the advantages of a modern plumbing system—and how easily it can be yours.

CRANE the preferred plumbing and heating



CRANE LIMITED

General Office: 1170 Beaver Hall Square, Montreal 6 Canadian Factories • 18 Canadian Branches

Something New

A new name, a new front cover, a new heading for the editorial page and a new section devoted to the interests of the feminine half of agriculture are all introduced to our readers with this issue of the Journal. It may seem like a lot to swallow all at one time, but we felt that the Journal has been in need of an overhaul and it would be of little use to make a few minor changes—something big was called for and carried out. The result you see in this issue.

We like to think that the new set up is a definite improvement and we hope that you will agree with us. Some of these changes have been in our minds for a long time, but it is not always easy to translate thought into action and so we waited until the right moment came along and September 1952, proved to be "zero hour."

Let's take a look at some of these changes and see why we thought they were necessary. We'll start with our name. It has been felt for a long time that the name "Macdonald College Journal," denoted a student publication rather than a magazine devoted to the interest of agriculture. This criticism has been made on more than one occasion, and very often by people we thought ought to know better. However, it was a valid criticism and more than any other was responsible for the change in our name to "Macdonald Farm Journal".

All of us at the college are very proud of our new cover. New type and new colours brighten and beautify the page that first catches the eye, and after all that's a mighty important page. We hope we have increased our "eye appeal" rating one hundred per cent; a bright colourful cover is restful to the reader, it puts him in a mellow frame of mind before opening the Journal to read further, and that's good.

Then there's the small, but to our mind equally significant change in the heading to the editorial page. To repeat the Journal's name on this page we felt served no useful purpose. What was wanted was something which would denote what this page really was, what it was intended to do, the function it served in the magazine. In this new heading we feel that we have caught those reasons.

Finally, there is the new section devoted to our feminine readers. Something along this line has been lacking in the Journal for a long time. A balanced, readable magazine must appeal to all sections of the populace and that is what we aim to do.

There they are, our four changes and the reasons. We hope you agree right down the line with us, if you don't, write and let us know—write anyway, we are always happy to hear.

The Macdonald College Journal supplied reliable and authoritative information to farmers on all subjects relating to agriculture. It believed that education was the prime requisite without which no farm problems could be tackled and solved. It believed in tolerance of other points of view and importiality in weighing the facts of a case. It had no row to hoe, it was not tied to any pressure group urging the adoption of this or that solution to a problem regardless of the results to others. It believed in the co-operative ideal, in the working together of groups of farmers to reach a common end. It supported Farm Forum because it believed in the ideals and aims of that organization. It welcomed and abetted all indications of racial harmony. To all these aims the Macdonald Farm Journal subscribes and upholds with the same vigour as did its predecessor. These things have not changed.

Any article in the Journal may be reprinted if the source and the author are credited. The Macdonald Farm Journal is owned and edited by Macdonald College, and is published in Montreal, P.Q. All correspondence concerning material appearing in the Journal should be addressed to: The Editor, Macdonald College, Que.

Chairman of the Board, W. H. Brittain, PhD., Editor, A. B. Walsh, B.Sc. (Agr.), Associate Editor, H. R. C. Avison, M.A., Farm Editor, Colin Muirhead, M.S., Circulation Manager, L. H. Hamilton, M.S., Business Manager, J. H. Holton, B.Com.

For advertising rates and all correspondence concerning the advertising section write to the Advertising Representative, E. Gross, 202 Cote St. Antoine Road, Westmount; telephone GLenview 2815.

Subscription rate \$1.00 for 3 years. Authorized as second class mail, Post Office Department, Ottawa.

Keeping The Farm In The Family

by W. A. Jenkins



The sons of Mr. R. F. Newcombe of Port Williams, N.S. are lucky, for the farm is large enough to provide jobs for

both the boys. A more complicated form of father-son agreement would be necessary in a case like this.

A YOUNG man born and brought up on a farm, some day reaches a point where he must decide for himself whether or not he is going to take up farming as his life's work. If he chooses to farm, he must decide whether he is going to start on his home farm or elsewhere. In either case, it is only fair to suppose that he will eventually gain title to his own farm. Some very successful farmers have become farm owners by starting with their parents on the home farm. Conversely, some of our greatest financial and personal tragedies in farming have occurred in instances where a young man started to farm on the home place.

Farming is now recognized as a business as well as a method of living. The amount of capital required to start farming to day is much more than was required a generation ago. Moreover, the effort required to begin farming is usually more complicated than that of accepting an urban job. We find many capable young men leaving home farms in search of other employment rather than undertake the long uphill grind to farm ownership.

The Canada Census for 1941 shows that this problem is more important in some provinces than in others.

Canada Census — 1941

over 50 years of age % Canada 45.9 74.9 P. E. I. 53.2 92.2 N. S. 58.9 92.2 N. B. 51.0 92.4 P. Q. 40.2 92.6 Ontario 50.9 77.9 Saskatchewan 42.9 52.6	Percentage of Farms Operated by Men		Percentage of Farms Operated by Owner
P. E. I. 53.2 92.2 N. S. 58.9 92.2 N. B. 51.0 92.4 P. Q. 40.2 92.6 Ontario 50.9 77.9	over 50 years of age		
N. S. 58.9 92.2 N. B. 51.0 92.4 P. Q. 40.2 92.6 Ontario 50.9 77.9	Canada	45.9	74.9
N. B. 51.0 92.4 P. Q. 40.2 92.6 Ontario 50.9 77.9	P. E. I.	53.2	92.2
N. B. 51.0 92.4 P. Q. 40.2 92.6 Ontario 50.9 77.9		58.9	92.2
Ontario 50.9 77.9		51.0	92.4
Ontario 50.9 77.9	P. O	40.2	92.6
Saskatchewan 42.9 52.6		50.9	77.9
	Saskatchewan	42.9	52.6

It will be noted from this table that the province of Quebec, for instance, has a relatively high proportion of younger men operating farms. Also, when compared to On the one hand we have productive farms owned by men who want to retire from active operations, on the other we have young men who are eager to farm but have little to put on the barrelhead. This article by Mr. Jenkins, who hails from Truro, N.S., tells us how best to bridge the gap.

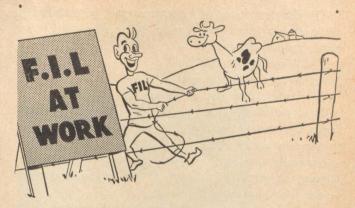
other provinces, Saskatchewan shows a relatively small percentage of the farms operated by the present owners. Both these conditions make the problem of transferring farms more simple, or at least not so urgent for immediate study. Nova Scotia, on the other hand, has a high proportion of older men on farms and 92.2 percent of its farms are owned by their present operators. These figures which are fairly old tell the story and it seems that the new Census will reveal a picture that is not much brighter. It is bad enough that our population has increased about 20% while the farm labour force has fallen by about the same amount. The fact that we are consuming about 15% more food per capita since the last census and that the average age of farm operators is considerably higher makes this problem even more important now than it was when the 1941 Census was published. How can the ownership of these farms be transferred so that satisfactory arrangements will be made for all concerned? The present owner is concerned because, in many cases, he has taken a lifetime of hard work to build up his farm and it is only right that he should reap some benefits for his work even if it is only security from want and a choice of how much work he does or when he does it. The young man is concerned because he sees little point in putting his energy, hopes and ambitions into a farm business only to have it taken over in later years by other members of the family or at least having to pay them off for all the improvements he has made. The community and the nation are concerned because of the great loss of effort and the rapid depreciation of farms that take place between the time when the older men cease to work their farms as they know they should be worked and the time when these same farms are under the ownership of younger men who have the ambition and physical capabilities to put the farm back on a good production basis.

Business Arrangements

In many cases, there seems to be some sort of an agreement or understanding between various members of the family as to how the work and responsibility of the farm will be shared. In fewer cases, there is an understanding as to how the farm profits will be divided. In only a rare instance do we find a clear-cut, written agreement between members of the family as to who will eventually take over the home farm and on what terms. It seems that any changes to be made in buildings, choice of livestock, crops, fields, etc. are ever so simple as compared to changes in business dealings within a family. There are many psychological factors to be considered when dealing in family affairs and not the least of these is the ability of getting along with each other. An ideal combination can be attained when the capital and experience of the older man are put together with the younger man's health and vigour and between the two there is a common understanding and respect for each other.

Essentially then, a good father son business agreement should set forth the way in which the farm income shall be divided and this division should be based on the contributions of each party. Where, in the beginning, all the son has to contribute is his labour, his share of the farm income would be about the same as a hired man's wage; but as his labour becomes more valuable and he assumes more of the responsibilities of management his portion of the net returns should be increased accordingly. Provision should also be made for the son to invest some of his savings in the capital ownership of the farm, if he wishes, and to receive a fair return on his equity. Such an agreement should envisage the father eventually receiving a return on his investment only.

Most business arrangements should be written. A written agreement is definite and prevents any misunderstanding of the terms of agreement or of ownership of property. In the event of death of either the father or the son there is no misunderstanding between the heirs of the deceased and the surviving party. Also when the terms of the contract are set down in writing there is a greater assurance that the business relations are put on a fair and businesslike basis. This written agreement should state the contributions of each party and the manner in which the receipts and expenses are to be divided.



.. BUILDING FENCES

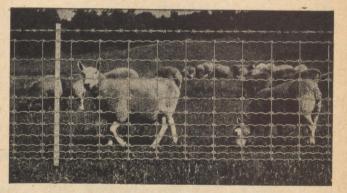
If you are interested in learning how the B of M helps thousands of Canadian farmers by lending them the ready cash for this and many other farm and home improvements, ask or write for our folder "Quiz for a Go-ahead Farmer".



BANK OF MONTREAL Canada's First Bank

working with Canadians in every walk of life since 1817

DOSCO "SECURITY" FENCING



All that its name implies!

You can count on Dosco "Security" for any farm fencing or gate job. Good looking, durable—made to the rigid standards of the American Society for Testing Materials.



DOMINION STEEL AND COAL

Corporation Limited

Fence Sales Division

Canada Cement Bldg. - - - - - Montrea

The different kinds of agreements may be classified as non-partner-ship and partnership. Non-partnership agreements include those such as:

- (a) Wage agreements
- (b) Wages plus a bonus
- (c) Profits from certain enterprises

Farm partnerships are particularly adapted to larger farms and these generally grow out of one of the nonpartnership agreements.

Generally speaking, a desirable arrangement in transferring the farm from father to son might take place in the following stages:

- (1) Let the son have an enterprise or project of his own.
- (2) As the boy grows older he should enter a profit-sharing, non-partnership agreement.
- (3) Later he may be taken in as a partner.
- (4) Finally, he should receive a deed of the farm on some basis that is satisfactory to both he and his father.

Questions to be Considered

1. Is the farm business big enough to support two families? There are many instances of unsuccessful partnerships where the failure is due to the fact that there just isn't enough income to support two families. A farm business at one time may have been large enough to keep one family in good shape, provide for a car, and perhaps a few extras. Today, this same farm may not be enough to maintain two families in the bare essentials. Under such circumstances, either the father or son could manage without the assistance of the other, and this is what should be done.

Of course, there may be a possibility of enlarging the present organization either by adding another enterprise or by farming more land. Also, there may be the possibility that the parents do not require all their support from the farm and might accept a smaller return on their investment.

- 2. What about living arrangements? Generally speaking, the best insurance against misunderstandings between parents and married children who are farming in partnership is to have two of everything, i.e. houses, garages, gardens, stoves and chesterfields. There are instances where two families live together in peace and harmony, but this is easier in city homes where the business is entirely separate from the family circle. In most country homes, it is necessary to keep pleasant relationships between the various members of the household throughout the entire day and the best way of doing this seems to be to keep the families separate.
- 3. How, Why, When? The Farm Management Division of the Nova Scotia Agricultural College has drawn up a standard form of a working agreement for a farmer and his son. Although this is not recommended for all conditions it provides a guide for further study.



This farmer and son have teamed up to win many fine trophies and awards with their purebred Holstein herd.

In connection with transferring title to a farm, every case must be treated individually. But it is the responsibility of every farmer to think about this problem.



FIELD TESTS PROVE

PASTURE FERTILIZING

DOUBLES YIELD

FERTILIZED PASTURE UNFERTILIZED PASTURE

WEEDS 10%
GRASSES

50%

CLOVER 40%

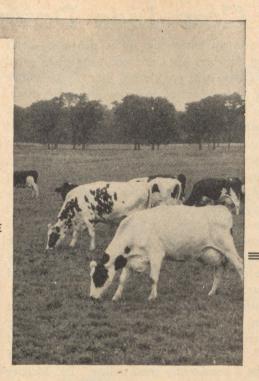
YIELD PER ACRE

9 TONS

Green Weight

GRASSES 55%

YIELD PER ACRE
5 TONS
Green Weight



Actual field tests prove that pasture fertilizing increases yield from 5 tons per acre to 9-a gain of 80%. The crop's clover content is increased nearly 70%, weeds reduced by more than half.

How Pasture Fertilizing Pays

- 1. Fertilized pastures have higher nutritive value and a greater percentage of legumes. Sward is stronger and closer.
- 2. Fertilizer applications increase milk production an average of 5,000 pounds per ton applied.
- 3. Fertilizing almost doubles stock carrying capacity.
- **4.** Grazing season is lengthened 10 to 14 days, thus making a major saving in barn feeding costs.

C-I-L Fertilizers Are Field-Proven

C-I-L Fertilizers have been proved in the field by thousands of successful users. To help



farmers select the best fertilizer to meet their cropping requirements, C-I-L provides a free soil-testing and advisory service, staffed by highly qualified soil chemists with practical farm experience.

CANADIAN INDUSTRIES LIMITED

Agricultural Chemicals Department

Cow Lies Down Half Her Life

That cow you see busily tugging at the grass—don't feel too sorry for her, life's not one long daily grind trying to "up" her milk production. Fact of the matter is she spends 51 per cent of her time just lying down. That makes a lot of us awful envious of old Bossy. 32 per cent of her time she spends eating or walking to and from the barn, in the field or around the barnyard. Like humans she has to take a little leisure just doing nothing, and this takes up 17 per cent of her time. There you have it, how the well dressed cow spends her time—almost human, isn't it?

These facts were brought out by Dr. Mercier, chief of the Experimental Farm, Lennoxville, during the course of a short talk he delivered to the Sherbrooke Farm Forum picnic and field day which held its annual field day at the farm recently.

Harold Riches, president of the Sherbrooke Farm Forum opened the meeting and introduced the speaker to the large crowd. Dr. Mercier spoke on "Pastures and Fertilization." "Lots of good lush grass is essential if a cow is to be a consistently good milker," Dr. Mercier said, "It takes 125 pounds of green grass to maintain a cow's body weight and give 30 pounds of milk. That's a lot of feed," he continued, "and it's all a cow can do to get it in an 8 hour day if the pasture is good. If they are not, then the cow spends far too much time foraging, and if she doesn't get enough to eat her milk production suffers."

Dr. Mercier advocated maintaining pastures in a high state of productivity, for they are the cheapest source of high protein feed that a farmer has. "Fertilization and renovation will do the job," he said. "By using a combination of these two methods pasture yields can be doubled," Dr. Mercier told the visitors.

During the morning, Mr. Richardson escorted a convoy of cars around the farm where tests acreages of birds-



Here's part of the crowd looking over the farm,



Fred Green holding the calf that Ive's Hall and Draper's Corner Farm Forum put on the auction block.

foot trefoil were shown, and the efficiency of Empire and Japanese millet as cover crops was exhibited. The Japanese millet which is not a true millet does not meet the standards, at least as far as the experimentation has proceeded to date. The theory is that the cattle find the Japanese millet succulent and eat it right down. The recently completed pole barn was also inspected. This winter experiments are going to be carried out here with beef cattle on whether cut or uncut hay makes the best feed for them. What it really means is, which will be easier to pull out of the self-feeders.

Right after the picnic style dinner, Fred Green of Compton led a calf he had donated to the Ive's Hill and Draper's Corner Forum out onto the lawn for an auction. A. E. Church of Lennoxville was the auctioneer and it was mainly through his untiring efforts that the calf was disposed of. The money raised in this way is to be used to set up a study of farm credit.



For The Ladies

Here is a section devoted to the interests of the feminine half of agriculture. Recipes, helpful hints for housework and the latest in fashions will be presented as a monthly feature.

Caring For Nylon

Strength, elasticity, ability to hold definite shape or dimensions when washed, and quick drying are some of the characteristics which have made nylon one of the most popular fabrics for wearing apparel and household use. This statement comes from Miss Eleanor Kidd, Supervisor of Clothing, Women's Institute Branch, Ontario Department of Agriculture. She adds that an understanding of these characteristics and of the care of the fabric to preserve it will enable the homemaker to use nylon to even better advantage.

Another of the characteristics of nylon is its abrasive resistance. However, the surface of pure nylon sometimes roughens or forms little balls of nap when the fabric is subjected to rubbing. If wool is added to the fabric when it is being made, this is overcome. Conversely, shirting flannel with about 12% nylon in it is much stronger than all-wool flannel of the same weight. In other words, the strength which makes nylon popular, still serves its purpose when the nylon is combined with other fibres.

While nylon is easy to launder, the washability of any textile depends on the dyeing and finishing, the type of fabric and seams, the trimming and the design of the merchandise. Thus it may be that dissatisfaction with a particular article should be blamed on one of these factors rather than on the nylon itself.

Another point to keep in mind is that while nylon is resistant to alkali, it is easily damaged by mineral acids. Some deodorants and similar materials are sufficiently acid to damage nylon, especially if not removed by thorough washing before ironing.

Miss Kidd suggests washing dyed nylon with lukewarm water and mild soap or detergent. White nylon fabrics should be washed separately as they may be discoloured from dye or soil removed from other clothing. Blueing seems to improve the whiteness and a bleach can be used to remove specific stains. However, the bleach will not correct over-all discolouration.

To minimize or eliminate ironing, Miss Kidd says to wring the nylon lightly. Knit nylon, so treated, seldom requires ironing, but woven nylon fabric will look better if ironed while slightly damp. Since high temperatures may yellow white nylon, and, if too high, may even melt the fabric, she emphasizes that a cool iron not a hot one, should be used.

In conclusion, she points out that sunlight causes severe deterioration of delustered or semi-dull nylon fabric. This explains why some of the first nylon curtains proved



"Though travelling alone . . . "

Miss S. N., home from Europe, writes to thank her bank for the way the accountant helped her with money arrangements:

"Mr. W. expended considerable effort to arm me with details of various European currencies and methods of procedure, enabling me, though travelling alone, to avoid much of the delay and embarrassment encountered by many experienced travellers whom I met along the way. All of which contributed in no small degree to my comfort and enjoyment."

The bank can smooth the way for people travelling on business or pleasure at home or abroad. Providing Letters of Credit, Travellers Cheques and other assistance is just one small part of the day-by-day service rendered by any branch of any chartered bank.

This advertisement, based on an actual letter, is presented here by

THE BANKS SERVING
YOUR COMMUNITY



disappointing. However, those made of bright nylon should prove serviceable, if not hung in windows exposed to very strong sunlight.

Cut Down On Cuts

How many burns and how many cuts would you have had if you had kept a record of them for you and your family this past year?

Many of the accidents that happen around the home are due to carelessness. When you are preparing your meals are you careless in the use of knives? Do you try to slice off sections by holding the meat or vegetables in your hand and cutting toward you?

How many times have you opened a tin can and been cut with the jagged edge? What kind of a can opener do you own? There are many good types on the market, some that are fastened to the table or the wall, using a good steel knife to open the can and turn the edges in at the same time. So many people try to open a can with a poor can opener, the can slips, and the individual is often cut.

How many times has a person in your home slipped on water or grease that had spilled? Have you thought about the position of the handle on kettles as food is cooking on the stove? Be sure that they are turned in toward the wall away from the front of the stove while cooking.

Is it possible for your kitchen curtains to drag over a stove, even a hot electrical plate, and perhaps create a fire? The sooner we become safety conscious the sooner our home will be a safe place in which to live. Remember, more accidents happen in homes than on the highways. Make your home safe, today.

Guard Against Loss Of Calves



Animals like this got off to a good start—it always pays.

TO be profitable a beef cow should raise one calf a year. If, through negligence or lack of attention at calving time, the calf dies, loss is incurred because the cow is maintained for a whole year without any returns. With proper care, most losses can be avoided.

There are four steps which beef producers should take to avoid such accidents, says Mr. P. E. Sylvestre, of the Central Experimental Farm, Ottawa. These are: Watch for signs of approaching calving: Have a comfortable place for the cow: Make sure that the calf starts breathing: Make sure that it gets its first drink early.

When breeding dates are not available, a close watch should be kept for approaching signs of parturition in the cows. An early sign is the enlargement of the udder. This is followed by a change in its content from a watery secretion to a thick milky colostrum. At about the same time, there will be a loosening of the muscles around

the tail and pinbones. Later on, as labor pains begin, the cow will show signs of uneasiness. Frequently, she will lie down and get up at short intervals. This is the time when closer watch is necessary.

At the Central Experimental Farm, calving takes place in the cow's winter quarters. Taking advantage of the cow's desire for isolation at calving time, the warmest part of the pen is well bedded with clean straw. The cow is then left alone. After about two hours, if calving has not taken place an inspection is made for abnormalities. Difficult calving is generally the result of too large a calf or malpresentation.

In the first case, traction on the calf as the cow labors is generally sufficient. In the latter case, however, a veterinarian is called at once, as too long a delay may weaken the cow.

After the calf is born, the mucus is removed from the calf's nostrils to facilitate breathing. If the new-born calf does not show signs of life, pressure on the ribs, and traction on the tongue will help start breathing. The next step is to apply tincture of iodine to the navel cord to prevent possible infection. Finally, the calf is placed in the driest and warmest spot and both cow and calf are left to themselves.

A normal calf should nurse of its own accord. If after five or six hours, the calf has not nursed, it should be helped. It is a good plan to have the calf suck each teat. Calves sometimes select one or two teats only, and neglect the others which may result in complications such as swollen quarters, or even complete loss of quarters.

A normal calf should be up and around the day following its birth. When this happens you may be sure that the calf is out of danger, and well on its way.

Where Are We Going With Refrigeration?

by W. R. Phillips

Every year more and more uses are being found for refrigeration and old ones are being expanded, but we still need to know a lot more about rapid cooling and what are the correct temperatures to hold foods at. In this article Mr. Phillips gives us some help in ironing out the kinks.

FOOD storage has, for many centuries, been a necessary function in our existence. This has evolved from using natural caves or excavations, through ice storages to mechanical refrigeration. The latter, although considered a comparatively recent invention, has become an accepted integral part of our everyday life.

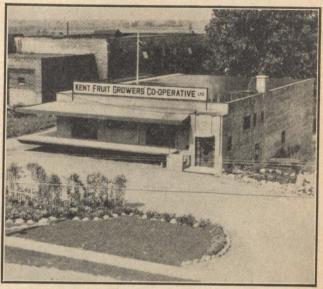
Refrigeration has far exceeded its original function as a means of storing food. We use it now to cool our buildings in summer, to heat them in winter, to cool the water we drink, as an air drying medium in industry and many other functions too numerous to mention. Industry, trade and commerce would soon become crippled without it.

How did this all come about? Like the automobile, radio and the steam engine, it was only through the efforts, often unappreciated, of many of our forefathers. Patient hours, days, weeks and years of painstaking research gradually brought to light the mysteries of nature which make such things possible.

In the field of agriculture we have milk coolers, lockers for freezing meats, poultry, fruits and vegetables, warehouses of various sizes for perishable crops and, more recently, mechanical refrigeration for railway cars and trucks. In all these vital functions are we certain that we have made the maximum use of our "talent"? Is there any way in which its application can be improved? For an answer to these questions let us consider some of the practical aspects.

In our warehouses in the city and at production centres we find, after the fall harvest season, thousands of bushels of apples placed away for future markets. Previously these same apples would be placed in cellars or any cool location and very likely would become quite rotten before being consumed. With refrigeration the onset of rots are delayed and we feel secure in the fact that storage life has been prolonged.

Apples, like human beings, have a variable span of life. Orchard treatment, and handling at harvest and maturity, influence length of life in storage. Thus apples from the same orchard may show considerable variation in their life span. It is the duty of the storage manager to inspect the apples frequently from time to time to see that short-lived apples are disposed of first. This procedure is a necessary one but many operators look



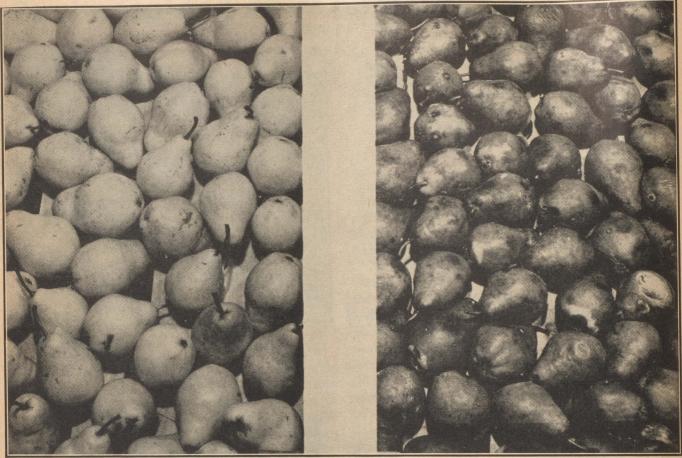
This is a typical fruit storage plant, which like most others of its kind is located near the production area.

on a storage unit as a means of holding produce until such times as scarcities are created. This stems from the natural human instinct to gamble on future markets. What actually happens in many instances is that the fruit is held too long.

So many people have asked: "Why can't we ever buy good apples?" The answer, I think, is the gambling instinct to hold out for the probable rise in price. Opposed to this is the fact that certain lots of apples, on inspection, are found to be showing signs of rotting and judged a poor risk. These are immediately packed up and sold. No sooner are these on the market when other lots are found to be going bad. These are packed up and sold—this cycle being repeated until the final dregs of the storage are cleaned up.

Such practices, mean that the consumer sees only those apples on the verge of collapse. In many cases good storage apples and poor storage apples can be separated at harvest. What should be remembered is that poor apples will not improve—but why not sell them while they are reasonably good? Furthermore, why not release some of the high quality apples before they, too, become wasty?

The fundamental principle in storage, whether it be apples, beets, celery or any other product, is that the more rapidly the temperature is reduced to the proper temperature of storage the better. From an engineering standpoint this is a big job. Produce warmed by the heat of the sun contains great quantities of heat to be extracted in a short interval. This is the job of the refrigeration equipment. Once this heat is extracted the mechanical equipment has a comparatively easy task holding the temperature down.



This is what happens when pears are held too long in storage. Those on the left are normal, but those on the

In practical terms, this may mean the installation of 100 horsepower to do the cooling job lasting only two to three weeks. After the cooling is done 25 horsepower may be adequate for the remainder of the storage life. Thus to the prospective owner of the storage it appears somewhat of a waste to have 75% of his installed equipment going idle most of the time. On the other hand, if adequate refrigeration is not installed the operator fights a losing battle while the produce is being cooled. Temperatures will be normal to the point where the cooling load is too heavy, after which temperatures will rise and the produce will start to ripen, resulting in a considerable percentage loss of potential storage life.

Most refrigeration companies explain this situation to prospective purchasers. But there is always the unscrupulous agent who will cut prices by providing inadequate equipment. In other instances the storage builder and future operator himself has deliberately reduced the horse-power of the equipment, much to his own grief. Initial savings up to as high as 25% on the initial installation costs may look good to the board of directors. It is false economy, however, if such savings are going to result in subsequent loss of product.

Housewives the country over are unanimous in their complaints about bruised fruit and vegetables. Frequently, it may be only one split potato, or an apple with one

right show a general breakdown: discolouration and rots resulting from holding too long.

side flattened with a pressure bruise, or a head of celery with a torn stalk. If there is such a blemish present the purchaser's eye is immediately attracted to it. Whether a single exception is a case or whether the damage is general throughout, the consumer is immediately prejudiced. It is a natural instinct to distinguish good food from bad on the basis of appearance. It is by such means that nature protected our forefathers from digestive contamination. This same instinct is reducing the purchase of much of our stored products.

Fresh fruits and vegetables are living material. As such, even a slight bruise at harvest will not be confined to the original injury but is liable to cause other complications. For example, we have recently learned that an apple bruised at harvest or during storage is more susceptible to breakdown than unbruised apples. Respiration rates will rise even as a result of a slight bruise. This indicates that the basic living processes have been disturbed. Such observations indicate that rough handling or even slight damage not only spoil the appearance of the produce but may also cause more serious secondary injury.

The practical implication is that if producers in general took time to consider (1) the loss of sales through the objectionable appearance of roughly handled produce and (2) the considerable loss of produce in storage

SEPTEMBER 1952

through rough handling, drastic steps would be taken to curtail it. If the losses of revenue through these two channels could be reduced to even 50% it would mean the difference between success and failure in many instances.

The way to do this may appear costly from the stand-point of increasing handling charges, particularly at harvest. The first step is careful picking, probably the most difficult to accomplish. This is followed by careful transportation and loading into storage. Grading, if practicable, should not be done at this time. If, for example, potatoes come from a diseased field, or if the apples are of lower grade, the product must be graded before storage; otherwise the less handling until ready for market the better.

It appears to be an almost universal law that extremely high production is accomplished at the sacrifice of quality. This does not mean, however, that high quality can be expected where production is low. The rule appears to be that there is definite production level below or above which quality falls off.

In apples, high production is associated with lack of color, with larger, tasteless fruit. In potatoes, with low dry matter and low eating quality. In pears, with a gritty texture, and so we could go on to show that whether high production is achieved through varietal selection, fertilizer application or other means, quality

suffers. The art of production in agriculture resolves itself to selecting a balance between maintaining a high level economic production rate with a low sacrifice to quality.

Still again, we have the prevalence of the gambling instinct. It appears that we will always have a certain percentage of individuals who are inclined to make an extra dollar through excessive production at the risk of jeopardizing future sales. What is more, many producers apparently think that refrigerated storage will mysteriously improve such low quality material. What does happen is that low quality fruit and vegetables become lower in quality while in storage. Not only that but frequently high quality material in the same storage will also suffer.

In spite of the many abuses, refrigerated storage does fulfil a very useful function in our marketing economy. Like transportation, it occupies a key position between the product. and the consumer. This has been accomplished through reducing decay, lengthening storage life, preventing gluts and making for a more orderly form of marketing.

Let us rise above the attitude of using refrigeration for speculation and use it rationally. In the past the difference between a production area having refrigeration and one that did not is that the latter had its glut period at an earlier date. Are we merely going to use refrigeration as a means of delaying a market glut?

Information Please!

This section should make interesting reading, for it is given over to the problems of our readers. Problems sent in by Farm Forum and other groups will be dealt with here.

SOME of the people who write to the Information Centre, Box 237, Macdonald College are really seeking important information. A recent letter wanted information on electrical wiring—at this time of the year when the nights are getting longer, when we shall be putting a heavier load upon our electrical circuits, this is an important subject. The fact that a poorly insulated or an overloaded circuit is a potential fire hazard is often overlooked.

Many farmstead wiring systems are out of date, and this may point to real trouble unless the wiring is changed to handle modern day electrical loads.

Much of the wiring on Quebec farms was put in when electricity was used mostly for lights, electric motor pumps and a few pieces of household equipment. Now farmers use heat lamps or brooders for pigs, large motors to carry out a great variety of tasks such as operating pressure water systems, and a great many other pieces of electrical equipment.

Check your lights and the operation of electrical equipment to determine whether or not your wiring is out of date. Here are some of the warning signals. Lights dim when the refrigerator or pump motor turns on. If you have a fluorescent light in the kitchen, it may go completely out. Radio volume decreases when the electric water heater or iron is turned on. The cream separator motor seems to lack the speed it once had. The electric range is slower in heating. Electric motors stall and get hot.

If you are losing time and patience because of these troubles, chances are that your farmstead wiring is inadequate. For the electrical equipment you are using, the wires from the transformer to the equipment are too long, too small, or both.

It pays to rewire if you notice these danger signals. In addition to the low voltage which causes dim lights, loss of power and loss of time in waiting for electrical elements to heat, electricity furnished by inadequate wiring costs more money. These extra costs can amount to 8 or 10 percent, all charged to too long and too small farmstead wiring. Shortening wires by moving the transformer closer to the meter pole will make a big difference to the electric bill. You pay for the energy lost in all wires on your side of the transformer.



DEPARTMENT OF AGRICULTURE

Activities, Plans and Policies of the Quebec Department of Agriculture

Quebec Honours Its Farmers



The Wednesday of fair week at Quebec is always the big day for farmers, for this is when the awards for the Agricultural Merit competition, Quebec's unique way of rewarding our better farmers, are made. The Minister of Agriculture presides at a mammoth banquet attended by the Prime Minister, the Archbishop of Quebec, and other leaders

of the political and religious bodies of the province; medals are presented, and every farmer present at the dinner goes home resolved that some day he will be receiving one of the top awards.

This year's winner of the gold medal is Joseph Louis Paquet, who receives the title of Commander of the Order of Agricultural Merit, a Diploma of Exceptional Merit, and a sizeable cheque. Mr. Paquet, who farms at St. Come in Beauce County, won a silver medal five years ago when the competition was last held in his district, and since then brought his farming operations to the point where his farm was adjudged the best of the 153 for whom final reports were made.

Eleven farmers were competing for the gold medal—to be eligible, the farm must have already been awarded a silver medal in a previous competition. Also in the running for gold medals were four farms operated by religious organizations; such farms, since they do not produce revenue from which a farm family lives, are judged separately and are not in competition with bonafide farmers. Of these four, the Institution Chanoine Beaudet at St. Pascal in Kamouraska County, the farm director of which is Sister St. Godfroy, earned 93½ points to win the gold medal for its class. The College of Levis, the Institut St. Jean Bosco and the Agricultural Orphanage at Lac Etchemin in Dorchester County were the other three.

In the section competing for the silver medal, Alphonse Roy of St. Lambert in Levis County led with 886 points, and Florent Rioux of Riviere du Loup was at the head of the list of bronze medal winners—those whose farms scored less than 850.

The Reward Of Effort

Mr. Paquet's achievement is all the more remarkable when one considers what he had to work on. Grandson of a colonist, he had a very difficult farm to work and has spent most of his life draining and clearing it of stones. Through hurculean effort he now has 65 acres in cultivation and 9 in bush which he and two of his sons work together. He also works another farm nearby of about the same size, which will probably go to one of the boys. Besides these two sons who work with him, he has a married daughter and two other boys at home. The eldest son is married and has five children of his own.

He operates the farm on a three-year rotation, and Richard system plowing has managed to drain the fields properly. There is little to be seen of the thousands of tons of stones that have been removed; most of them have been used to make roads throughout the farm, and the rest went into stone fences which have been built in such a manner that they add to, rather than detract from, the look of the place. His land has been well limed and he is a strong believer in the liberal use of manure and commercial fertilizers.

Mr. Paquet takes special pains with his 19 acres of pastures, seeded to timothy and ladino, on which he runs 30 milking Ayrshires during the summer. His average milk production runs around 8,500 pounds. The other livestock (he has 52 head of Ayrshires altogether) are adequately provided for, and he has 9 brood sows and 2 horses on the place as well. He bottles the milk and cream in his own dairy and sells it at retail in the village of St. Come.

His field crops always run over average in yields, and he puts up grass silage in two silos of 69 and 120 tons capacity respectively. He grows potatoes, mangels, fodder corn and grain.

With all he has to do on the farm, he finds time, as do most of our successful farmers, to take part in civic affairs and is always in the forefront of any movement that will improve the lot of the rural dweller. He has been a member of the municipal council and president of the School Board, and was one of the founders of the local U.C.C. and the co-operatives.

Banquet Honours Winners

Mr. Paquet might well have been overwhelmed at the line up of dignitaries at the closing banquet who had

gathered to pay honour to him and the other competitors, all of whom were guests of the Department of Agriculture. In addition to the Minister of Agriculture, who acted as master of ceremonies, the head table guests included Premier Duplessis, Hon. George Marler, Archbishop Roy, Deputy Minister of Agriculture Trepanier, Associate Federal Minister of Agriculture Bouchard, The Hon. Antonio Elie, Senator Tardif, and a number of members of Parliament and leaders in the agricultural world.

In his introduction of Mr. Paquet, the Minister of Agriculture stressed his conviction that the family farm is the ideal for our conditions in this province, and that he hoped never to see the day when farming in Quebec would be taken over by large land-owners or farming corporations, who would operate their farms as a factory is operated in the cities. Farming offers stability—the good life for a man and his whole family, and every effort must be made to assure that the farm remains a family affair.

Archbishop Roy developed this theme still farther, and went on to say that the remarkable development of our farming practices in this province has been due, in large measure, to the work of the agronomes, who do not always receive all the appreciation they might. The work of the rural clergy, too, who are always ready to support the farmers in their efforts to better themselves, must not be minimized. But the work of the rural clergy, he felt, is being hampered by the fact that there has, of recent years, been a falling off in the numbers of young men from the rural areas who are presenting themselves for the priesthood; men who should be preparing themselves for work in communities they understand.

M. Marler, in his capacity as house leader of the Opposition, was also happy to congratulate all the winners. He threw out the suggestion that the Department of Agriculture might do something to increase the local production of fruits and vegetables, claiming that in the midst of a rich farming province it is often difficult to obtain fresh vegetables and fruit in restaurants and hotels. He thought something could be done to reduce the importation of these items by replacing the imported product with local crops.

Premier Duplessis cited farming as the prime example of private industry, and the very basis of all good family and national life. Security belongs to those on the farm, and farmers should be proud of their profession and pass this pride on to their children. He expressed concern at the amount of farm land all over the province that is being broken up into building lots, and reminded his hearers that although money received from the sale of a farm could disappear in a relatively short time, land does not. The increasing complexity of farming operations he considered as a blessing, inasmuch as it encouraged more of the children to remain on the home farm. On a diversified farm, each division could be supervised by



Premier Duplessis awards the Gold Medal to J. L. Paquet. Mr. Paquet

one of the boys, thus giving every member of the family something for which to be responsible. There is a great difference in attitude when one is working on his own at something and when one is merely doing farm work.

Other Winners

The teaching of household arts in Quebec began in 1882 at a convent at Roberval, and with a programme planned to meet the particular needs of the region and the times. And from this modest beginning have come the various courses that are now available to young farm women. One of the prime movers in the movement was Abbe Beaudet, who became interested while he was a young curé at St. Pascal in Kamouraska and who devoted much of his life to it. He founded a domestic science school at St. Pascal in 1904 and courses began in September, 1905, under the direction of the Sisters of the Congregation of Notre Dame there.

Seven years later the Sisters bought a 265 acre farm, so that they could give their young charges their instruction in a farm atmosphere, and could include in their curriculum some training in those aspects of farming in which the farm women are traditionally interested.

Their farm now carries a pure bred Ayrshire herd, sheep, hogs and poultry, all of excellent quality. It is a model for the region, and plays an important role in distributing quality breeding stock to the surrounding farms. It also comes into the economic picture by supplying food for the nuns and for their students.

The gold medal and the diploma of exceptional merit were accepted by Mr. Hubert Pelletier who is the farm manager.

Sherbrooke Chalks Up A Record Fair

Sherbrooke Fair's record attendance this year probably had something to do with the way the weather co-operated. With the harvesting well under control, more farmers than usual apparently felt they could spare the time to go to the fair, and the sunny weather which prevailed for practically all the week brought out the city folks in great numbers. Then, too, it didn't take long for word to spread that this was one of the best efforts for some years, and the people who were there early in the week passed the word on to their friends. All the exhibits were of first class quality, and that goes for the livestock, the industrial exhibits, the displays of farm machinery and so forth. There was plenty for those who go to the fair mainly for amusement; a first rate grandstand performance, an excellent programme of harness racing, and a well-operated Midway.

One thing that always makes an impression on the visitor to Sherbrooke is the way the grounds are kept. It seems to be a point of honour among the men responsible for keeping the grounds clean never to have any litter around. There is always somebody picking up paper and trash, with the result that the grounds are generally in spic and span condition. The buildings are kept up well and the paint brushes were given a good workout before the fair started. As a result, the impression is of a clean, well-run layout where the comfort of the visitors and exhibitors is the main consideration.

Livestock get consideration too. The stables are kept in first class condition, and this year every stall was in use. As a matter of fact, the race committee had to find extra accommodation, for the 105 race horses that were brought for the meet overflowed the usual stable space. They ran into another snag when the purse money gave out before the race programme was finished, and more had to be raised in a hurry. But this was all to the good and they are hoping for an even bigger show next year.

Federal, Provincial and Municipal grants to the E.T.A.A. were increased this year, which has made it possible to make some much needed improvements in the Arena building. Renovations in the Industrial Building were completed previously, and the whole plant is now in ship-shape condition and should not need any extensive renovations for some years. More people than ever before saw the big show, and apparently every single one was pleased with it.

Junior Work A Feature

Calf club members came to the Sherbrooke fair for the first time twenty six years ago, and they have been coming yearly since then to show their calves, and to take part in judging and showmanship contests. Now, Sherbrooke stages the finals of the inter-club judging competitions, the winners of which represent the Province of Quebec at the national competition in Toronto in the Fall. 1940 was the only year when the contests were not held. The Eastern Townships Agricultural Association meets all expenses in connection with these events, including transportation and upkeep of all calf club members and their livestock, which costs some \$1,500 yearly. But they consider it money well invested, realizing that these young farmers will be running their own establishments in a very few years, and calf club work is of prime importance in getting them off to a good start in their breeding and feeding programmes. Livestock judging teams this fall worked with dairy cattle, sheep and hogs, and at the Winter Fair the contest for beef cattle judging will be held.

There are twenty four calf clubs in the Eastern Town ships at the present time, under the guidance of Gaston Marcoux, Federal livestock fieldman. The provincial organization is headed by Mr. J. P. Fleury who has his headquarters in Montreal. The calf club movement itself was initiated by Stephan Boily.



Calf club members and officials of the Departments of Agriculture and of the E.T.A.A. in front of the Arena Building at Sherbrooke.

Competition Results

Nineteen teams, of two members, finalists in regional competitions held earlier, came out for the dairy cattle judging competition. Hermel Giard and Bernard Gauthier of the St. Hyacinthe club scored first place with 1089 points, Giard being the high individual scorer with 558 points. Rhoda Simon and Cliff Baxter of Vaudreuil were second with 1077 and Doris Hayes and George Pirie of Shawville placed third with 1067. Pirie was second high individual scorer with 548. In fourth place with 1052 came Patricia Irving and Basil Kelly of Huntingdon. Only four teams were entered in the hog judging section, and L. Belzile and Gilles Belzile won out with 847 points. Two teams judged sheep, P. Rodrigue and Jean Guy Rodrigue of St. Benjamin scoring 752 to the 623 scored by Mirette Proulx and Claudette Levesque of Ste. Anne du Lac.



The dairy team with Albert Desrosier, fieldman, and J. P. Fleury (who appears in the other pictures also).

All Exhibits Bigger and Better

Over 600 head of cattle were on display in the various breeds, plus 160 horses, 138 sheeps, 64 hogs and over 1000 items were on display in the poultry and rabbit cages. A number of new exhibitors were noted this year, pointing to a bright future for the fair, which has already been held 67 times. In all classes, entries were at an all-time high. Jersey breeders brought out no less than 146 head to stage what was probably the best Jersey show to be seen anywhere in Canada this year. Holsteins were not far behind with 125, and the Ayrshires, Gurnseys and Canadiens held their own well.

Judging Results

Space limitations make it impossible for the Journal to publish judging results in detail, and we must content ourselves with listing the championships in the various breeds.

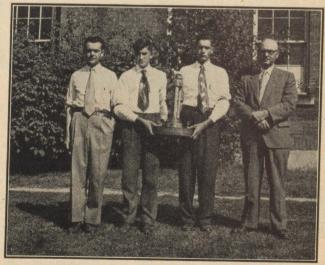
Holsteins. W. K. MacLeod, Disraeli, had the senior and grand championships in both male and female classes, the reserve junior female, and won the senior herd and progeny of dam groups. Albert Pepin of Warwick had



The champion hog judges with P. E. Cote, livestock fieldman, and agronome Bonneau.

reserve senior and grand champion female, and the senior get of sire. Lucien Gosselin of Weedon had the reserve junior male, the junior female, and won the breeder's herd and junior get of sire classes. The Wales Home at Richmond showed the reserve senior and grand champion bull, and Kenneth Skiller of South Durham had the junior male champion.

Ayrshires. Mrs. J. K. MacFarlane, Philipsburg, showed the senior and grand champion bull, the reserve junior bull, and won two of the group classes; breeder's herd and the junior get of sire. J. W. MacGillivray of Knowlton had the reserve senior and grand champion bull, the reserve senior female and took the top award in the senior herd class. O. A. Fowler of Kingsbury had the reserve grand champion female and the junior champion



Best of the sheep judges, with agronome R. Zache.

female while Douglas Johnston of Stanstead had the senior and grand champion female and the senior get of sire. Yvan Paquette of Granby showed the reserve junior female and Mount Bros., Brome, stood first in the progeny of dam class.

Jerseys. Competition for the top awards narrowed down to three breeders. Pierre Veillon of Sweetsburg had the junior champion bull and the reserve. He showed the reserve senior and grand female, the reserve junior female, and won two groups; progeny of dam and breeder's herd. Mrs. A. R. Virgin of North Hatley had the senior



A beautiful class of Jerseys.

and grand champion in both the male and female classes and won the senior herd class. E. L. deGarston, West Farnham, had reserve senior and grand champion bull, and both senior and junior get of sire. Junior champion female was shown by B. A. Ryan of West Brome.

Gurnseys. In this breed P. M. Fox of Foster allowed the opposition only one win in the classes we have been reporting; F. Sanborn of Sweetsburg won the progeny of dam class but all the championships and the other group classes went to Fox.

Canadiens. O. A. Fowler, Kingsbury, A. Demers, Rock Forest and H. F. Baldwin, Baldwin's Mills, were showing in this breed, with the majority of the awards going to Fowler. Demers showed the reserve senior and grand champions in both sexes, and the senior and grand female, while Fowler had all the other championships and won all the group classes.



Geo. Girard and Basil Kelly, scholarship winners

Le Bulletin des Agriculteurs offers two scholarships to calf club members, which entitle the winners to a twoyear all expense paid course at some agricultural school in Quebec. The scholarships are awarded on the results of a

special examination set during the fair; the winners this year were Basil Kelly of Huntingdon, who made an average mark of 94%, and George Girard of St. Rosalie (St. Hyacinthe Calf Club) who had 93%. Close on their heels was Robert Miller of Brome, who made 92%. Kelly intends to go to Macdonald College in the Diploma Course, and Giard will take up his studies at Ste. Martine this fall.

Keeping Track of Results From St. Hyacinthe

Ever since 1948 the Quebec Artificial Breeding Centre at St. Hyacinthe has kept a careful record of the females born by artificial insemination by the Center's bulls.

The calves are identified by the conventional ear tag in the right ear which carries a letter, referring to the year of birth, a serial number, and the code number of the sire. For example, if the tag reads F123 A13, this means that the calf was born in 1951 (F), is identified by the number 123, that she was sired by an Ayrshire bull (A), which is designated as No. 13, which is the code number for Willowhaugh Skymaster.

Each time a calf is thus identified, the technician fills out a certificate which shows the tag number, the name and eartag number of the dam, and the name and address of the owner. One copy of the certificate goes to the farmer, and the other copy is kept at the Centre for record purposes.

The information on the ear tag is useful to the farmer when he comes to breed this particular female, carrying the information it does. The certificate can be considered as a sort of registration certificate, and can be used to start a herd book for future guidance. When the information is completed by milking records, a good start has been made on a planned programme of improvement in the grade herds.

The information on the ear tag also helps the technician when he is called in to inseminate the animal. His first step is to identify her from his records, and he can thus be sure he is not mating her to her father or brother, but can choose semen from some other bull which he is carrying with him.

When a female born through artificial insemination is listed for milking control, she should be identified by her ear tag number. This helps the farmer to study and file his reports, but the important thing is that it gives the officials of the Centre the chance to record milk production for the daughters of each bull to gives figures on his ability to breed for high milk production, and to determine how cows bred artificially compare with their dams, or with the average of other cows in the province, in milk production.

Dairy Courses For The Winter

Following are the dates for the various courses to be given at the Provincial Dairy School at St. Hyacinthe during the fall and winter.

Dairy Technology Dairy Products Testing

Fluid milk production Casein making Buttermaking Cheesemaking

September 29 to March 31 September 29 to October 11 January 12 to January 24 February 23 to March 7 October 13 to November 8
February 17 and 18
January 26 to February 21
March 9 to April 2
March 9 to March 21

Ice cream making March 9 to March 21
There will be a separate course in testing for English speaking students from February 23 to March 7. The other courses listed are given in French only.

Veterinary Topics

by D. G. Dale, D.V.M.

In recent months another dread livestock disease has been receiving considerable attention in the veterinary journals. In the first quarter of 1952 there was a total of 395 outbreaks of Anthrax with a resultant loss of 846 swine and 31 head of cattle in five states in the U.S.A.

Anthrax is not entirely new to the United States, as in 1951 there was a total of 483 outbreaks with a loss of about 1000 pigs and a similar number of cattle. The reason for the increased interest in the 1952 cases is that for the most part the outbreaks have occurred in northern and middle west states, whereas in past years the disease seemed to be confined to the southern areas. There is also the added factor of the "off season"

Laboratory tests conducted during one or two of these outbreaks seemed to prove that the infection had been introduced to these northern areas through the feeding of a supplement containing imported bone meal. The federal authorities, however, do not seem to be entirely convinced that this is necessarily the full explanation as the bone meal in question had been mixed with domestic meat scrap, etc., before it was placed on the market.

Anthrax has a rather interesting medical history. It was one of the first plagues to be described in ancient literature. It was also one of the first diseases proven to be caused by a bacterial organism. In 1876 Koch, a German physician working alone and with very little in the way of equipment startled the scientific world of his day by proving that anthrax was transmitted from animal to animal and often to man by means of bacterial spores. Further work showed that these spores were extremely resistant to adverse conditions and thus contaminated areas remained dangerous for considerable lengths of time.

At about this time the French chemist Pasteur was engaged in his now famous bacteriological experiments. As anthrax was one of the major diseases of his day, it was inevitable that he should decide to work on the subject. In 1881 he developed a vaccine and conducted a public demonstration to show that it was possible to immunize against deadly bacterial diseases.

Today with the advent of the antibiotics, it is usually possible to successfully treat animals and man when the infection breaks out. In Canada anthrax is one of the "reportable

diseases", that is, outbreaks are handled by the Health of Animals Branch of the Federal Department of Agriculture.

With the recent outbreaks occurring in the U.S.A., it may be well to outline the principal symptoms of anthrax. Though sheep and cattle are the most highly susceptible all livestock and man may be affected. In its most acute form the disease may produce no symptoms at all, the animal simply dies in convulsions within a matter of minutes. In the more usual form swellings are often found on the surface of the body.



THE MINER RUBBER COMPANY LIMITED

usually around the neck or chest. The body temperature is high (105°-107°). Bloody diarrhea usually develops prior to death. Appetite and milk secretion are very markedly depressed. If untreated death usually follows the initial symptoms in about 2 or 3 days. Animals found dead at pasture will often show a bloody discharge from the nose, mouth and rectum.

It can be readily seen that the symptoms of anthrax closely resemble those of blackleg and related highly fatal diseases. Therefore, one should always be cautious about opening the carcass of any animal that has died under suspicious circumstances. It is extremely important that the carcasses of animals dead of any of these diseases be properly disposed off. If a post mortem has been performed, they should be buried or preferably burned right on the spot. If burying is the only practical procedure, the ground should be covered with lime afterwards and fenced off so that other animals cannot graze over it. A laboratory diagnosis is the only positive proof of anthrax.



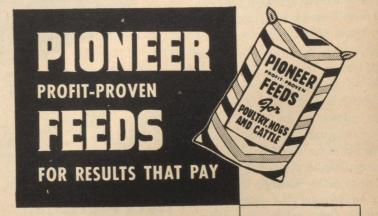
FOR SALE AT ALL CANADIAN NATIONAL RAILWAYS STATIONS, TELEGRAPH AND EXPRESS OFFICES

Strippings

by Gordon W. Geddes We certainly haven't had to com-

plain of too much rain in the last few weeks. Most of us were rather tolerant of the lack of moisture while we were trying to put in our hay. And it did give us a fine chance to harvest the big crop which the 'too much' rain in the spring produced. After getting twenty-five percent more in our silo due to finer chopping, we had to bale eight hundred and ninetyfive bales, which the operator told us meant over thirty tons. Even then it was tight squeezing to get it in the barn. We cut it all with a pair of horses, most of it in one day. It was raked with the tractor though and the baler did its work in about six hours. If we had had a week of rain right then, it would have been an expensive proposition. But it was all in the barn before it rained which meant some good hay where it could be easily handled instead of spending a long time to stack it and still have to handle it over. After all the other hay was in and we had fed enough to open the hay chute, we began to bring in our tripods, one at a time, for feeding purposes. They had been there about two months and had settled rather out of shape. However they were in good condition and the cattle seemed to like the hay, even on clover pasture. We feel as if there are circumstances where a limited quantity of them could serve a useful purpose.

When haying was finished and the dry spell still continued people began to feel more tolerant towards the wet weather early in the year. We could see that if it had been as dry early in the year, we should have had no crop at all. Grain will average rather a small crop as much of it was sowed late. The rye that we sowed in November and the oats that we sowed May 24th were combined to-day. Aug. 20th, which is a short growing period for Vanguard oats. They turned out fairly well as we got over forty bushels to the acre. The later fields will certainly not average as well. With them we tried another experiment as we cut around them while they were green and put the oats in a temporary silo. We thought this might be an easy way to cut around them and that the feed might be handy this fall to replace the turnips we didn't plant. After we began it we found that the neighbour who does our combining had traded



PIONEER FEED DIVISION PURITY FLOUR MILLS LIMITED

Saint John, N. B. · Montreal · Ottawa Toronto · Winnipeg · Calgary · Vancouver millers of ... PURITY FLOUR PURITY CAKE MIX PURITY PIE CRUST MIX AND PURITY OATS

for a self-propelled combine and we didn't need to cut around the fields. However we had started and had to do enough to make silage enough to be worth while.

At present it looks as if our experiment of seeding down the fall rye this spring was successful both in the pasture and where we saved the rye for seed. In the latter it was so high it was rather a nuisance in combining. Of course it is not that high in the pasture but there is quite a growth in spite of being grazed. However if I was repeating the attempt I should have my seed ready so it could be done earlier before the rye made so much growth.

Canada has now been declared free of foot-and-mouth disease which is a very important declaration that we all hope does not have to be withdrawn. Still this is only a step towards the final goal of convincing the United States that it is so. Until that goal is reached, our markets will not improve to any extent. When it will happen seems to be anybody's guess but it is surely nearer if we have wiped out the infection. In our section it is mainly a market for dairy cattle that is needed. Nearly everyone with a dairy here has been selling for export which means there are a lot of extra cows here now. We have not so big a surplus ourselves as we might have since our calves



PRODUCERS OF Dehydrated

CLOVERS & GRASSES ALFALFA & CEROGRAS

FOR LIVESTOCK AND POULTRY FEEDS





For only a few cents a day you, too, can have water constantly available at the turn of a faucet for your home, farm buildings and garden.

Convenience counts, but running water is a real producer, too! It means greater yield of milk and eggs, more weight on steers and hogs, better gardens—an Electric Water System will pay its own way. Why wait longer?—LET REDDY DO IT!



have not been heifers for two years. We probably have feed enough to keep them all but it would crowd the stable pretty well and might need more help than we could find. It would give us almost twice as many milking as we had two years ago but not nearly twice as much stock. For us the worst feature is that we have a big stock of well-bred Jersey bulls from R.O.P. dams which we saved for export when we didn't get heifers. If the embargo stays on. probably they will have to go for meat which is also down in price to the producer, though not so much to the consumer. We did have one cow that we should have been glad

to get even meat price for. She calved in the pasture, had some difficulty and was quite dead before we knew it. At least she made it as inexpensive as possible since we did not have to pay a big bill to a veterinarian before we lost her. She left a heifer calf in the pasture which was promptly adopted by a cow which had her own three months before. She fed it so well that it was two days before we could get it to take any more milk. George was laughing about it after and said that she even gave more milk after she thought she had a calf again. Probably the clover aftermath had as much to do with it as the calf.



THE WOMEN'S INSTITUTES SECTION

Devoted to the activities of the Quebec Institutes and to matters of interest to them

The Educational Program Of The Q.W.I.*

by Verna I. Hatch

Yes, I am proud to be a member of the Quebec Women's Institutes. What finer motto can any organization have than "For Home and Country"? The Women's Institute does much to improve conditions in the home. It does a tremendous amount to make our rural schools a happy and profitable place for the future citizens of our country. I shall tell you about some of the activities carried on in most counties.

In many schools hot lunches are made possible at the noon hour. What can do more to improve health standards in our schools than having at least one hot dish with the noon day meal? Good health raises the standard of progress in any field of work.

A keener interest is created by giving prizes. Treats, which children love, are given for the school Christmas tree. Picnics are sponsored. In some centres libraries are being supplied. Good reading does much for the morale of any child. In many schools radios have been supplied and in some cases projectors have been purchased by Institute Branches. Both radio and films do a splendid job in adding something very real and impressive to the History, Geography or Science lesson of today. Recently I taught a lesson on the city of Washington and discussed with my class places of interest which I had once visited there. They were very interested, yes, but when a film was presented the next day on this same city it made the places we had talked about become a part of them. Seeing them left a lasting impression. Through films much more can be accomplished in the same length of time. Again they prove that "Seeing is believing".

Many worth while projects are sponsored at W.I. meetings for the younger members present. These take the form of cooking contests, sewing, flower collections, vegetable exhibits and many others. All these tend to make the child independent and more reliable.

One project which has much in its favour and does much towards training the future generation is the School Fair. Children are taught to grow and prepare their own exhibits of flowers and vegetables. They experience the thrill of judging certain exhibits. They have an opportunity to acquire the art of speech making. All these experiences help to make them better and more cooperative citizens.

There is a great need in the world today for international friendliness. Institutes have done much to promote this feeling. Each year I know members of Sherbrooke County visit a Homemakers' Club in Orleans

County, Vermont. Our visit and their return visit are both high-lights of the year's program. They do much to broaden our ideas.

I have spoken of many phases of Institute work, which as members you accomplish with a great deal of credit. May I make a few suggestions which might spur you, as Institute workers, to greater endeavours.

First let me mention the School Fair. Would it not be wise to start early to encourage children to begin cooking, sewing, carving, making scrap books, or whatever the enterprise may be? It is too late to become interested only after the prize list is distributed.

Secondly, take more interest in your Home and School Association. It needs your help. Teachers are anxious to hear your problems. They want you to be welcome to visit the school at any time. Bring your complaints to them and I'm sure you'll find them willing to comply with your requests if at all possible. On the other hand, if you are pleased with any particular effort the teacher is making don't hesitate to tell her that too. Remember, they are human and, like children, respond to a little praise, when justly earned.

Help to make it possible to have the finer arts taught in your school. Music and art are a very necessary part of their training. Physical Training should also be carried on in every modern school of today.

Teachers cannot be successful in educating your children unless they have your co-operation and unless they know something about their pupils' home environment. Giving a tea for the new teachers in your community is a splendid gesture, but why not carry it a little further? A teacher gains a greater understanding of your children if he or she is privileged to visit their homes, even on rare occasions. It is in the atmosphere of home life that much is revealed to those who have them under their charge for the greater part of the day.

Follow up the work of the school nurse. She is doing a splendid job. What can be more important than the health of your child? Certainly an ailing child does not progress favourable in his or her school work.

Outdoor exercise keeps children fit and I know from experience that most schools never have enough sport equipment. I know that some do not have even a base ball and bat.

I think it is fine to promote international friendliness

*From a talk given by Miss Hatch, Provincial Convenor of Education, over station CKTS, Sherbrooke.

but wouldn't it be of great value also to exchange visits with some of our own counties? Even individual branches might exchange visits.

We send food parcels and gifts overseas. Many branches have pen-friends in other lands. In addition to these why not adopt a War Veteran as your special care? There are many of them still in hospitals or in wheel chairs in their own homes, to whom a magazine subscription or some little kindness would bring a great deal of pleasure. They can never be repaid for what they have done for us.

In all our teaching and in all we do let us strive for peace. Always remember it is the little things that create differences. In the big things of life we are one.

Looking Abroad

"Country people with their background of tradition, continuity of experience, and dignity, handed down from generation to generation, have preserved the individual spirit that is required as a stabilising influence in the world today", said Mr. George Ivan Smith, of the United Nations Information Centre, speaking at the annual meeting of the Executive Committee of the Associated Country Women of the World, held in London, the second week in July. In his address entitled, "Education in International Relationships", Mr. Smith stressed the value of the rural community in building up a basic foundation for good international understanding.

A second speaker was Mrs. Stofberg, president of the South African Women's Agricultural Union, who gave an account of the history and development of her Society. Mrs. Stofberg has been a member of ACWW since 1933 and was a representative at the Stockholm Conference where the ACWW was first organized.

A report of this annual meeting has just reached the office of the Quebec Women's Institutes, which mentions plans were discussed for the visit of the ACWW president, Mrs. R. Sayre, Ackworth, Iowa, to Africa this coming fall. At the request of her own organization, the Associated Women of the American Farm Bureau, Mrs. Sayre plans to extend her tour to include a visit to the UNESCO Janata College, Delhi, a project assisted financially by the AWAFB.

Another item from this report will be of interest to Q.W.I. members who are engaged in the "Letter Friend" project. This year 3,284 letter exchanges have been arranged by the Central Office. This brings the total to date up to 14,442 correspondents, an intimate channel of communication between countrywomen all over the world.

This brings one of the Q.W.I. projects to mind, the study of the British Isles. Many branches have established links with Institutes in the old country, through the Personal Parcel plan, or through friends. There is no better way of getting first hand information, so you who have no contact, why not ask the provincial con-

venor of Citizenship, Mrs. E. S. Reed, Gaspé, for an address? She has charge of that service for the Q.W.I. and will be very glad to give you a "link" with similar groups overseas.

A request has gone to the office of the National Federation of Women's Institutes, England, for material to assist in this study. At present there is on hand the last annual report and the March issue of "Home and Country". The cover shows the map of England (Isle of Man, Guernsey and Jersey) with the number of W.I. branches in each county. This paper contains an article by our English visitor of last summer, Mrs. F. E. Davis, which gives a few impressions of her Canadian trip.

Did you know that on the Isle of Man one woman in every ten is an Institute member, and the number is still growing? What's the matter with us?

The Month With The W.I.

It was the picnic month when these meetings were held. Many reports tell of such pleasant gatherings, when the good time was shared, in many instances, with the whole family and friends of the community. Discussion of convention "happenings" are also mentioned frequently, when delegates took back a résumé of the year's activities in the Q.W.I. and outlined future plans. Another item of interest is the splendid co-operation given the request for action regarding reforms in the Protestant Women's Jail, Montreal. The resul is awaited with interest.

Argenteuil: Arundel's program was arranged by Mrs. J. D. Williams, Publicity convenor, with a speaker, Mr. J. Stern, on that topic. Two parcels were sent overseas. Brownsburg W.I. made plans to charter a bus to the Ottawa Exhibition. A resolution was sent to the local town council requesting that the use of loud speakers announcing ball games and other sports on Sundays cease. Two films, A Library on Wheels and Does It Matter What You Think? were shown. Frontier made plans for a trip to the Central Experimental Farm. Lakefield welcomed Mrs. L. Westgate and made plans for a military whist. Pioneer is planning a lawn social.



Amid such surroundings no wonder it is called "Painting for Pleasure". The class at Cowansville with Miss Campbell seated at extreme right.



Annual picnic of Lochaber Women's Institute.

Chat-Huntingdon: Dundee had a talk and demonstration on salads by Mrs. W. D. Creighton of the Fort Covington Home Bureau. Lunch has been served at a Red Cross party. Franklin Centre gathered a salvage collection for the Salvation Army. Mrs. L. Parker gave a demonstration on smocking, as taught in Paris. Hemmingford completed school fair plans and Mrs. Willis Clarke demonstrated rug-making. Howick heard a paper on "Laws of a Good Canadian Citizen", by Mrs. Potts. Huntingdon is sponsoring a new Junior branch, organized at Athelstan by Mrs. W. E. Bernhardt, the County president. Articles on Home Nursing and the Peace Garden were read and Mrs. Andrew MacFarlane, Riverfield, gave a talk on "What I have learned about Communism". Ormstown sent a 15 lb. parcel of used cotton to the Cancer Society.

Compton: Bury received second prize for their float on Dominion Day and presented gifts to the children taking part at the track meet. Flowers were planted in the rock garden outside the cemetery. A quiz on Canada was held. Bury Juniors welcomed a new member and have ordered more pins. Members are enjoying a few days at camp. A float was entered in the Dominion Day parade. Brookbury had two members at the Leadership Training Course. Material is being furnished to cover the card tables in the W.I. hall. Canterbury held a food sale and salad supper at their meeting, netting a satisfactory sum. Sawyerville donated \$25 to the Dental Clinic. Games were played after the meeting.

Gatineau: Aylmer East has furnished curtains for the school auditorium. Eardley held a grandmother's meeting. There was a display of handwork of a former generation with prizes. A verse from your autograph book was featured. A reading, "The Old-fashioned Kitchen and the New" was given and a contest with prize for parade in your old dress. Lakefield, a new branch organized in June, reports hearing a detailed account of the Q.W.I. convention. Rupert voted \$15 to the Junior Band of the Salvation Army, Ottawa, as they provided music for the memorial service at the cemetery. A tea and food sale held in aid of branch funds netted about \$100. Wake-

field continues work for the Memorial Hospital and a garden party on the hospital grounds has been arranged. Wright held a "pot-luck" supper.

Megantic: Inverness raised money at a lunch counter at an agricultural dance, and \$59 was realized from a W.I. dance. A donation of \$5 has been sent to the Children's Memorial Hospital.

Missisquoi: Cowansville has completed plans for the judging of school gardens. Dunham voted \$14.80 to the ACWW Conference Fund and \$10 to the county. A food sale netted \$26. Fordyce sent a food parcel to their Austrian adoptee. Talks on "Barbados" were given by Mrs. Winser and Mrs. Gibson.

Papineau: Lochaber sends a picture of their picnic a most enjoyable event. (Why didn't other branches send theirs?) A member, celebrating the 30th anniversary of her wedding, was presented with a corsage and her husband with a boutonnière.

Pontiac: Bristol had eight grandmothers present and entertained the county president. Mrs. Findlay. Clarendon had eight grandmothers and one great-grandmother to answer the rollcall. A sale of aprons and a parcel post sale were featured. Shawville held a luncheon meeting at Green Lake. The next meeting will feature a trip to the Power Plant at Portage du Fort. Stark's Corners, too, observed grandmothers' day with 14 grandmothers and one great-grandmother in attendance. Prizes were given to the youngest and the one with the most grandchildren, while all received a gift. A talk on the history of the community was heard and a sing-song held. Quyon heard a paper on publicity by Mrs. M. Bronson. A committee was formed to sponsor the formation of a Girl Guide groupe and a Brownie Pack. Wyman had a humorous paper, "Man's Fear of the Pressure Cooker".

Rouville: Abbotsford members brought in aprons which were sold, netting a sum of \$10.25 for the treasury. A large parcel of cotton was donated to the Cancer Society.

Richmond: Cleveland had a contest on cup-cakes, later auctioning off the entries. A publicity contest with



Richmond Young Women's Institute.



Charter Members of Wyman W.I. Miss Pritchard will be recognized seated at left.

prizes was held. Denison's Mills visited the Cleveland branch for their meeting. Gore reports the completion of a patchwork quilt. Mrs. L. Driver gave an account of the Leadership Training Course. A cup cake contest was held. Melbourne Ridge held a candy contest, the winner in each class receiving a prize. A new Ways and Means committee was formed. Richmond Hill held a Bring and Buy sale and a friend was remembered on her 91st birthday. Richmond Young Women held a sale of cotton print bags. Shipton held a card party. A homemade coffee table, donated to the Branch, was sold to Miss Bonham.

Shefford: Granby Hill members brought in over 20 pot holders for the fall sale. About 85 people attended the annual picnic. Warden realized \$18 from a sale of place mats. This amount was donated to the Juniors to help finance their summer camping expenses. Four of their members are attending a camp. Their last meeting was held at Lake Wallis.

Sherbrooke: Ascot members served dinner to officials of the Guernsey Breeders Association at their annual meeting. Ten members have received turkeys from the Dept. of Agriculture, Quebec. Brompton Road observed grandmother's day when six W.I. pins were presented to those who were members and also to a visisting grandmother. Mrs. Eliza Decoteau was the only great-grandmother present. Members attended the McLeod school closing. Cherry River had a reading by the convenor of Education, "Here Goes the School Bell", also an account of the laying of the corner stone of the new Magog High School. A quilt is being made for sale to assist general funds. Milby had Miss Verna Hatch, County president and Q.W.I. convenor of Education, as guest speaker. A silver plate in honour of their 25th wedding anniversary was presented to the branch treasurer, Mrs. Roy Suitor and Mr. Suitor. Orford had a food sale. Forty turkeys have been received here and a discussion was held on their care.

Stanstead: Three branches in this county have also received turkeys: Beebe, Stanstead North and Tomifobia. Beebe announced that a sewing class would be held under the supervision of Miss Campbell, the week of

Sept. 30th. Hatley reports a successful rummage sale and plans were made for a dance. Stanstead North presented a life membership to Mrs. John T. Hackett. Members visited the new Sunnyside School just being completed at Rock Island. Way's Mills presented a silver teapot to a member in honour of her 25th wedding anniversary.

An Open Letter To The Branches

(This was sent to Mrs. LeBaron, and read at the Convention. It is being reproduced here so all may hear its message.)

Dear Mrs. LeBaron,

I would like to take this opportunity of thanking the ladies of the Women's Institute throughout the Province of Quebec for their extreme kindness in supporting our appeal for used cotton. Within the year we have received donations, sent prepaid, from 36 separate branches—cottons in excellent condition—which our volunteers have prepared with comparative ease for the tops of our bed-pad dressings.

Not only have these Branches sent one donation but in many cases they have repeated their generosity; this fact alone is very remarkable and deserves mention.

I might add that the various Branches of the Women's Institute are largely responsible for our success in supplying our patients with dressings, because without cotton it would be quite impossible.

Again on behalf of the Canadian Cancer Society may I offer our very grateful thanks to you for your co-operation in our work.

Yours sincerely,

L. S. SPEARMAN. (Mrs. Charles Spearman) Supervisor, Cancer Dressings Services.

Miss Groves left, and Mrs. Teare, members of Peel, W.I., Isle of Man, who spent part of a day at the College at the time of the Leadership Training Course. The shield they are displaying was left at the Q.W.I. Office and was on display during the Convention. It is handmade of oak and bears their crest and the W.I. motto, "For Home and Country".





THE COLLEGE PAGE

The Macdonald Clan

Notes and News of Staff Members and Former Students

Former Principal Dies in England

Dr. F. C. Harrison, who was Principal of Macdonald College from July 1, 1911 until June 30, 1926, passed away at his home in Westmoors, Dorset, on August 27 at the age of 81.

Dr. Harrison was appointed Principal of Macdonald College on the resignation of the first Principal, Dr. James W. Robertson, and also held the position of Head of the Department of Bacteriology. In this capacity he pursued research on all branches of agricultural bacteriology covering work on water, dairy products, soils, and diseases of plants and animals. Macdonald College's first technical bulletin, "The Milk Supply of Montreal" was written by him in collaboration with two other members of the staff, and this publication is credited with leading to important reforms in the handling of the city's milk supply. In 1917 he turned his attention to canned foods derived from the sea and made a number of valuable contributions to the fishing industry.

He left Macdonald to devote himself to research and to act as Professor of Bacteriology in the Faculty of Medicine at McGill. In 1929, he was named Dean of the Faculty of Graduate Studies and Research, but the combined posts proved too heavy for his health and he retired in 1930, with the rank of Dean Emeritus of the Faculty of Graduate Studies and Research and Professor Emeritus of Bacteriology.

As early as 1904 he had been a major in the Army, commanding a battery. In 1907 he took over command of the Third Field Battery in Montreal, and went on the reserve list when he came to Macdonald four years later. At the outbreak of the first World War he organized and commanded the Macdonald Contingent, C.O.T.C., and later served as adjutant-general at the Petawawa Artillery Camp until the end of the war. In 1919 he acted as Director of Agriculture of the Khaki University of Canada.

On retirement he went to live in Florence, Italy, and moved to England in 1939, where he remained until his death.

A.I.C. Awards Scholarships

Two recent graduates of the College have been awarded scholarships by the Agricultural Institute of Canada for advanced studies.

Ed. Cashman, '51, will continue his studies in Entomology at Notre Dame University, where he will specialize in the control of insects attacking stored products, particularly the flour beetle.

Morris Schnitzer, a class mate of Cashman's, is a chemist and is returning to Macdonald to continue working in soil chemistry.

Another scholarship holder, coming to Macdonald for graduate work in agricultural economics, is D. A MacFarlane, a graduate of St. Francis Xavier University. He will study marketing problems of livestock and poultry products particularly applicable to the Maritimes.

Junior Judges in Preliminary Contest

Junior judging teams from eight local clubs, those of Rupert, Lachute, Cowansville, Arundel, Ormstown, Howick, Huntingdon and Hudson-Vaudreuil came to Macdonald College in early August to hold the preliminary contest to determine who would go on to Sherbrooke for the provincial finals. One hundred and twenty boys and girls, with their agronomes, spent the morning judging Holsteins and Ayrshires, and spent the afternoon at various sports, mainly softball, on the campus. Our photo shows them hard at work at the cattle barn at the College.



Further Advice On Soil Conditioners

For successful results with soil conditioners such as "Loxar", gardeners should read the label on the container carefully and follow the recommendations religiously, advises L. M. Godfrey, agronomist of C-I-L's agricultural chemicals department.

Scientists have spent months of research on this product and the label recommendations reflect the best of their experiences, he said.

Before applying soil conditioner the soil should be prepared to a good state of tilth before treatment. Immediately after treatment, the conditioner should be intimately mixed with the soil. Soil should be fairly dry when application is made and treatment should never be made when rain is expected. After treatment a light sprinkling of water may be desirable. The treated area should not be disturbed for at least 24 hours.

When determining the rate of application it is necessary to consider the size of the area to be treated and the depth of treatment required. One pound of "Loxar" will treat 100 square feet to a depth of half an inch which is satisfactory for the control of acute erosion

"JOE BEAVER"

By Ed Nofziger



Forest Service, U. S. Department of Agriculture

"Us tree farmers are connected with the dairy business, too. We keep you supplied with high energy wood molasses."

problems or control of surface crusting for a limited time. Where long term treatment is desired, the soil should be treated to a depth of three to six inches, in which case, one pound of soil conditioner will treat an area from 16 to 8 square feet. Shallow treatment is effective for certain conditions but will not last indefinitely as the treated soil layer will be mixed with other soil layers.

Conservation of soil and moisture, improved drainage and aeration, prevention of erosion and caking have shown that chemical soil conditioners are useful tools, but like all other tools they must be used properly to be successful.

Feeding Market Pigs...

For growing and finishing market pigs the self-feeder has certain advantages over the more common handfeeding.

A number of tests to compare self-feeding with hand-feeding for market pigs were made at the Experimental Farm, Indian Head, Sask. Purebred Yorkshire pigs of reasonably good bacon type were fed from an average weight of 50 pounds to 200 pounds live weight.

All the pigs were confined in inside pens throughout the tests and received the same general care. The self-fed pigs had access to self-feeders containing a balanced meal mixture and fresh water was always available in the pen. Hand-fed lots received the same feed mixed with water to a sloppy consistency three times daily up to 120 pounds, then twice daily to market weight. Vitamin feeding oil was supplied to all lots during the first half of the feeding period.

The basic grain mixture fed in all tests was 50 pounds barley, 30 pounds oats and 20 pounds wheat, all grains being ground. To this basic mixture was added 15 per cent of a protein-mineral supplement for pigs from 50 to 120 pounds in weight and 8 per cent from this stage to market weight. In half of these tests, 20 per cent of the grains in the ration were replaced by bran for both self-fed and hand-fed lots.

In all tests at Indian Head, the self-fed lots equalled or exceeded hand-fed lots in the number of Grade A carcasses produced. Hand-fed pigs in all tests made the most economical gains, requiring somewhat less feed per 100 pounds of gain. But when a considerable number of pigs are fed, the saving in labour from the use of self-feeders should balance the extra feed consumed.

These tests indicate that the self-feeding method of growing and finishing market pigs compares very favourably with hand-feeding from the standpoint of the number of Grade A hogs produced, combined feed and labour costs, and net returns.



THE MACDONALD LASSIE